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**Trends**  
Innovative HiFi Audio

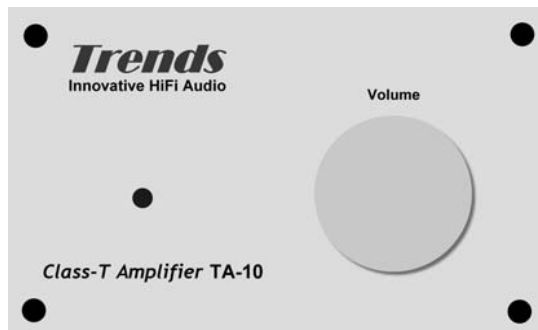
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# Trends Audio TA-10

## Class-T Stereo Amplifier

Ver. 1.0

# USER GUIDE



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**ITOK**

**ITOK Media Limited**

Rm 1011-12, 10/F., Tower 1, Millennium City 1,

388 Kwun Tong Road, Kowloon, Hong Kong

Tel: +852 2304 0730 Fax: +852 2566 5740

Email: [sales@TrendsAudio.com](mailto:sales@TrendsAudio.com)

Web: [www.TrendsAudio.com](http://www.TrendsAudio.com)

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## 1. Introduction

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Thank you for your purchase of Trends TA-10 Class-T stereo amplifier.

**Trends Audio** introduces the mini-size Class-T stereo amplifier TA-10 providing up to **2x15W** output with the bundled AC power supply unit. Thanks to the *Tripath's* proprietary **Class-T Digital Power Processing (TM)** technology and our special techniques in circuit design and component selection, TA-10 achieves the sound quality of high-end HiFi but in a very affordable price.

TA-10 performs very like Class-AB amplifiers with high fidelity and warm sound. Yet, its power efficiency and physical size is just like Class-D amplifiers. Even it's maximum output power is only 2x15W, TA-10 is actually powerful to push even the floor-stand speakers with sufficient and good control of bass sound. It has no problem for normal home use purpose.

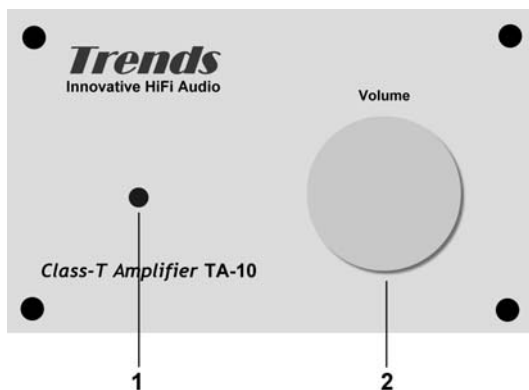
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## 2. Features

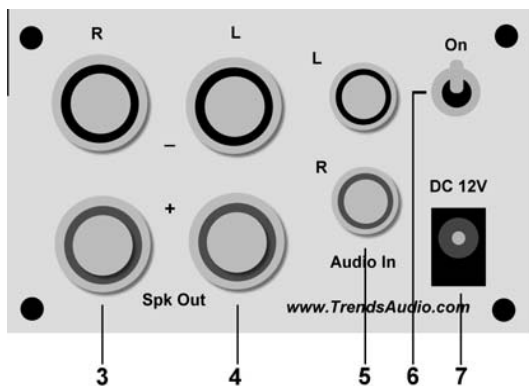
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- applied the proprietary T-amp technology for audiophile quality sound, high power efficiency (90%) and less heat generation
- compact design (mini-size & light weight), easy portable and setup
- provide up to 2x15W output
- an AC adaptor is bundled for continuous power supply.
- separated amplifier & AC adaptor design to minimize mutual interference and flexible to apply other power sources, e.g. lead-acid battery.
- standard audio and speaker sockets compatible with most audiophile quality cables.
- the DC bias between speaker terminals can be offset (close to  $\pm 0\text{mV}$ ) by adjusting the potentiometers (factory pre-set). It suppresses the "pop" sound when power on/off and also increase the sound purity.
- option to work as a pure power amp by simply reset jumpers to by-pass the volume controlling circuit.
- built-in over-current protection.
- built-in over-temperature protection
- audiophile-graded parts and components
- air-core inductor used instead of magnetic-core for better sound
- the stylish & specially-plated aluminium case provides not only good-looking, and also provides outstanding shielding capability.

### 3. Overview



1. Power Indicator
2. Volume Controller – Turn clockwise to minimize the volume level and vice versa.



3. RIGHT Speaker Output – The negative (-ve) and positive (+ve) speaker terminals of the RIGHT channel.
4. LEFT Speaker Output – The negative (-ve) and positive (+ve) speaker terminals of the LEFT channel.
5. Audio Input – The audio signal input (LEFT/RIGHT) connects from audio source (e.g. CD player) to the amplifier by the RCA audio cable.
6. Power ON/OFF switch – pull up to power on the TA-10 amplifier and pull down to power off.
7. Power Supply Socket – Plug the bundled AC Adaptor to this socket to supply power to this amplifier.

### 4. Advanced Features (for professional user only)

#### 4.1 Offset the DC bias voltage of the speaker terminals

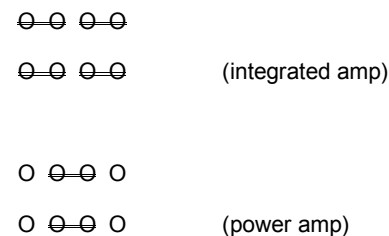
There are two blue adjustable potentiometers (Rt) for offsetting the DC bias voltage between the positive (+ve) and negative (-ve) terminals of each channel. Offset this DC bias voltage can enhance the purity of the sound and minimize the “pop” sound when power on and off. The DC bias has been pre-set in factory. But after run-in for a period, it would be slightly changed that the fine-tuning is needed.

Before you tune these, you need a screwdriver (take off the case), a small screwdriver (turn the screw of the potentiometer) and a (digital) multi-meter to detect the DC bias voltage.

1. Use screwdriver to take out the two top level screws in the front panel & another two screws in the back panel. Then, open the upper case.
2. Power ON the amplifier.
3. Use the multi-meter to detect the DC voltage (200mV) between +ve & -ve terminals of the RIGHT channel.
4. Turn the screw on the top of the LEFT (near the front panel) potentiometer by a small screwdriver clockwise or anticlockwise until the voltage as close as to  $\pm 0mV$ .
5. Then, repeat step 3 and 4 for the LEFT channel by turning the screw on the top of the RIGHT (near the back panel) potentiometer.
6. Power OFF the amplifier
7. Cover back the upper case and tighten the screws.

#### 4.2 Configure as power amplifier (by-pass the volume control)

You can simply configure the amplifier as an integrated amp (with volume control function) or as a pure power amp (no volume control function) by resetting the jumpers in J2 as follows:



## 5. Specifications

### 5.1 Specification of the Amplifier Unit

T-Amp IC	Tripath TA2024
Output Power	2x15W @4ohm 2x10W @8ohm
Signal-to-Noise Ratio (SNR)	98dB
Dynamic Range	98dB
IHF IM Distortion	0.10% @ 1W, 4ohm
THD+Noise	Audiophile Quality 0.03% @ 9W 4ohm 0.1% @ 11W 4ohm 0.1% @ 6W 8ohm High Power 10% @ 15W 4ohm 10% @ 10W 8ohm
Power Efficiency	81% @ 15W 4ohm 90% @ 10W 8ohm
Input	Audio IN RCA (Left/Right) x 1 Power Socket (5.5mm/2.1mm) x 1
Output	Speaker OUT (Left) x 1 pair (+/-) Speaker OUT (Right) x 1 pair (+/-)
Other Switch & Knob	Power ON/OFF switch x 1 Power Indicator (Blue LED) x1 Volume Knob x 1
Power Supply	DC 12V-13.2V (max.)
Dimensions	(W)76mm x (H)46mm x (D)114mm[case only]/150mm [incl. sockets & knob]
Weight	500g

### 5.2 Specification of the AC Adaptor

AC Input	Universal AC 100V-240V/50-60Hz
DC Output	DC 12V 3A (36W)
Ripple & Noise	<= 50mV
Over-load Protection	105%-150%
Over-voltage Protection	115%-150%
Dimensions	(L)117mm x (W)48mm x (H)33mm
Weight	300g

\* To continuously improve our product, we reserve the rights to change some specifications without further notice.

## 6. Troubleshooting

If your machine is out of order, it may not be very serious. Before you call your local distributor or us to repair, you are suggested to check the following:

Symptoms	Possible Reasons	Handling Methods
cannot power ON indicator not bright	power cords not properly connected	properly connect the power cords
	power switch is OFF	switch ON the power
no sound at all	the volume level is too low	turn volume level higher
	the audio cable not properly connected	properly connect the audio cable
	the audio source (e.g. CD player) not started playing	start playing the audio source
	the audio source is mute or connected with a headphone (some player may auto-mute the audio output when the headphone is connected)	Disable the mute or unplug the headphone connected, if any.
volume level cannot be adjust by turning the volume knob	the speaker cables not properly connected	properly connect the speaker cables
	the amplifier configured as pure power amplifier by setting the jumpers in J2	reset the jumpers in J2 back to integrated amplifier

## 7. Accessories

- AC adaptor (GM-120300) x1
- 3 pins power cord x1 (IEC female plug and male plug for your country standards)
- User Guide x1
- Warranty Card x1

## 8. Contact Us

### ITOK Media Limited (Trends Audio)

Address: Rm 1011-12, 10/F., Tower 1, Millennium City 1,  
388 Kwun Tong Road, Kowloon, Hong Kong

Phone: +852 2304 0730 (9am-6pm, HKG Time)

Fax: +852 2566-5740

Email: sales@TrendsAudio.com (Sales)

support@TrendAudio.com (Support)

Web: <http://www.TrendsAudio.com>